

Claims:

1. A process for treating a composition comprising one or more undesired compounds and one or more desired compounds so as to
5 reduce the concentration of at least one of the undesired compounds, which process comprises the steps of:
(1) contacting the composition with an extraction solvent comprising a (hydro)fluorocarbon, and
(2) separating the solvent from the one or more desired compounds;
10 wherein one or more of the desired compounds is an inorganic material, provided that water is not the only desired material.
2. A process according to claim 1, wherein the inorganic material is a halogen containing inorganic material.
- 15 3. A process according to claim 2, wherein the inorganic material is a fluorine containing inorganic material.
4. A process according to claim 3, wherein the fluorine containing
20 material is an alkali metal fluoride or an alkaline earth metal fluoride.
5. A process according to claim 4, wherein the fluorine containing material is calcium fluoride or potassium fluoride.
- 25 6. A process according to any one of the preceding claims, wherein at least one of the undesired compounds is odoriferous.

7. A process according to any one of the preceding claims, wherein at least one of the undesired compounds is a sulfur and/or nitrogen containing compound.
- 5 8. A process according to claim 7, wherein the undesired sulphur containing compound is at least one of carbon disulfide, carbonyl sulfide, dimethyldisulfide, ethanethiol, diethyldisulfide, 1,3-dihydro-2H-imidazole-2-thione, 2-(methylthio)-propane, 2-(methylthio)-butane, 1-(methylthio)-butane, methylethyldisulfide, 2-(ethylthio)-butane, sec-butyl isopropylsulfide, 1-(ethylthio)-butane, 1-
10 [(methylethyl)thio]butane and bis[2-(ethylthio)ethyl]ether.
9. A process according to claim 7, wherein the undesired nitrogen containing compound is at least one of ammonia, nitromethane,
15 methylamine, dimethylamine, trimethylamine, LDA (lithium diisopropylamide), hydroxylamine, ureas, ethylamine, diethylamine, triethylamine, 1,3-dihydro-2H-imidazole-2-thione, N,N-dimethyl-ethanethioamide and 2,2-dimethoxy-N-methyl-ethanamine.
- 20 10. A process according to any one of the preceding claims, wherein the composition is in the solid state or in the form of a slurry.
11. A process according to any one of claims 1 to 9, wherein the composition is in the liquid phase.
- 25 12. A process as claimed in any one of the preceding claims, wherein the extraction solvent comprises at least one (hydro)fluorocarbon

selected from the (hydro)fluoromethanes, the (hydro)fluoroethanes and the (hydro)fluoropropanes.

13. A process as claimed in claim 12, wherein the extraction solvent
5 comprises at least one (hydro)fluorocarbon selected from
trifluoromethane (R-23), fluoromethane (R-41), difluoromethane (R-
32), pentafluoroethane (R-125), 1,1,1-trifluoroethane (R-143a),
1,1,2,2-tetrafluoroethane (R-134), 1,1,1,2-tetrafluoroethane (R-134a),
1,1-difluoroethane (R-152a), 1,1,1,3,3-pentafluoropropane (R-
10 245fa), 1,1,2,2,3-pentafluoropropane (R-245ca), 1,1,1,2,3-
pentafluoropropane (R-245eb), 1,1,2,3,3-pentafluoropropane (R-
245ea), 1,1,1,2,3,3-hexafluoropropane (R-236ea), 1,1,1,2,2,3-
hexafluoropropane (R-236cb), 1,1,1,3,3,3-hexafluoropropane (R-
236fa), 1,1,1,2,3,3,3-heptafluoropropane (R-227ea) and 1,1,1,2,2,3,3-
15 heptafluoropropane (R-227ca).
14. A process as claimed in claim 13, wherein the extraction solvent
comprises at least one compound selected from 1,1,1,2-
tetrafluoroethane (R-134a), 1,1,1,3,3-pentafluoropropane (R-245fa),
20 1,1,1,2,3,3-hexafluoropropane (R-236ea) and 1,1,1,2,3,3,3-
heptafluoropropane (R-227ea).
15. A process as claimed in claim 14, wherein the extraction solvent
comprises 1,1,1,2-tetrafluoroethane (R-134a).

16. A process as claimed in any one of the preceding claims, wherein the extraction solvent comprises a co-solvent in addition to the (hydro)fluorocarbon.
- 5 17. A process as claimed in claim 16, wherein the co-solvent is halogen free.
18. A process as claimed in any one of the preceding claims which is conducted at a temperature in the range of from 0 to 30°C.
- 10 19. A process as claimed in any one of the preceding claims which is conducted at a pressure in the range of from 1 to 30 bar.